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Subject: Re: Assign subnet to VM? Or increase routing table limits?

Posted by [lars.bailey](#) on Fri, 07 Jan 2011 04:09:33 GMT

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I'm actually surprised that you haven't gotten some kind of response to this thread.  
Using this example;

Prefix/L: fd

Global ID: 2a92636461

Subnet ID: 0491

Combined/CID: fd2a:9263:6461:0491::/64

IPv6 addresses: fd2a:9263:6461:0491:xxxx:xxxx:xxxx:xxxx

The subnet of this prefix is;

0491

In other words, this is the end-point.

Any sub-netting schema for address management, should have been done somewhere in your router topology.

This is a matrix of a IPv6 prefix.

FD2A:9263:6461:0491:0000:0000:0000:0000

XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX

```

||| ||| ||| ||| ||| ||| |||
||| ||| ||| ||| ||| ||| |||128
||| ||| ||| ||| ||| ||| |||124
||| ||| ||| ||| ||| ||| |||120
||| ||| ||| ||| ||| ||| |||116
||| ||| ||| ||| ||| ||| |||112
||| ||| ||| ||| ||| ||| |||108
||| ||| ||| ||| ||| ||| |||104
||| ||| ||| ||| ||| ||| |||100
||| ||| ||| ||| ||| ||| |||96
||| ||| ||| ||| ||| ||| |||92
||| ||| ||| ||| ||| ||| |||88
||| ||| ||| ||| ||| ||| |||84
||| ||| ||| ||| ||| ||| |||80
||| ||| ||| ||| ||| ||| |||76
||| ||| ||| ||| ||| ||| |||72
||| ||| ||| ||| ||| ||| |||68
||| ||| ||| ||| ||| ||| |||64
||| ||| ||| ||| ||| ||| |||60
||| ||| ||| ||| ||| ||| |||56
||| ||| ||| ||| ||| ||| |||52
||| ||| ||| ||| ||| ||| |||48
||| ||| ||| ||| ||| ||| |||44
||| ||| ||| ||| ||| ||| |||40
```

||| 36  
||32  
|28  
24

What you would have to do, it cut the /64, into a /112.

```
FD2A:9263:6461:0491:0000:0000:0000::/112
FD2A:9263:6461:0491:0000:0000:0001::/112
FD2A:9263:6461:0491:0000:0000:0002::/112
FD2A:9263:6461:0491:0000:0000:0003::/112
FD2A:9263:6461:0491:0000:0000:0004::/112
FD2A:9263:6461:0491:0000:0000:0005::/112
FD2A:9263:6461:0491:0000:0000:0006::/112
=>
```

Assign the Node server, an IP from;

```
FD2A:9263:6461:0491:0000:0000:0000::1A
```

If you are using non-bridged VETH, each requires an IP from a different subnet.

A VETH from container VE101 would get;

```
FD2A:9263:6461:0491:0000:0000:0001:1A
```

The VE would get;

```
FD2A:9263:6461:0491:0000:0000:0001:65 "65 is 101 in binary"
```

All that is needed, is a route to the Node server's source-route interface, via the VETH IP, in a container.

But there is a caveat, to this type of setup.

Never use the IP command, to list IPv6 neighbors.

For whatever reason, it blows away the routing, to where you are back to square one. (this has happened to me)

For what it's worth, I think Ethernet bridging is really the solution for this type of setup. (one aggregate prefix via bridge)

Hope it helps.